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Management of Distance Learning for Competitive Advantage

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Abstract

This paper reviews the context of computer-mediated communication (CMC) as it relates to higher education distance learning classes. A review of industry strategic investment options and risks is presented. The need for university investment in information technology to achieve competitive advantage is seen in several citations. Finally, a challenge to enhance the image of the school is made by way of supporting students and faculty. A prestigious image being the product that students seek for their participation in the institution, the investment in information technology to enter the distant learning marketplace offers competitive advantage.

Introduction

It is an axiom of business that the future belongs to organizations that take advantage of change. In the post secondary education marketplace, change is riding the computer wave. The schools that are first to master the use of computers will dominate those that remain "traditional." This has happened in the commercial world and there is no reason to expect a different outcome in the higher education world. This paper examines management actions necessary to achieve competitive advantage in the marketplace of distance education and looks at various delivery methods of distance education, particularly the idea of 'distance' to characterize the use of computers to reach students not physically in "class."

A majority of NJIT students want to attend some classes asynchronously in time and place even as they also take other traditional classes. (Hiltz, 1997) Asynchronous Learning Networks (ALN) have been implemented and studied extensively at many schools and found to contribute positively to the learning process. (Spencer and Hiltz, 2000) Over the Internet the use of the ALN is joining the in-classroom students with the remote students (Hiltz, 1997) in a super-seminar of the two sections.

Definitions of Distance Education

- MIDDLE STATES ASSOCIATION: "...a formal educational process in which the majority of the instruction occurs when the learner and the instructor are not in the same place at the same time. In this process, information or distributed learning technology is the likely connector..."
- STATE OF NEW JERSEY, DEPT. OF EDUCATION: "...describes the building of electronic communities for sharing resources,

experiences, and instructional opportunities among school children and teachers."

- NEW JERSEY INSTITUTE OF TECHNOLOGY: "...[is] integration of the personal computer, video cassette recorder, television, and telephone, the classroom can be your home, office, or any place other than the college campus."
- Hiltz and Benbunan-Fich (1997): "An Asynchronous Learning Network (ALN) is a teaching and learning environment located within a Computer-Mediated Communication (CMC) system designed for anytime/anyplace use through computer networks."

Strategic Advantage

Each educational institution will have to find its place and style in this networked information age. The market will accept various flavors of education but not flavors out of taste with current lifestyles. Education in the context of everyday life will be offered for each unique group of students. It is the successful school that will be congruent with a large group. The marketplace will determine which educational offerings are prevalent and supportive of the groups. The marketplace for educational institutions will be on the information highway, where it will be difficult to maintain a unique image. (Turoff, 1995.)

Competitive Advantage

With change in the marketplace of higher education, what direction can be taken to achieve competitive advantage, the requirement for long-term survival? There are predictions of massive change. Luke (1998) predicts total upending of the political economy, opening easy access to all.

To regard information systems as means to achieve competitive advantage in the higher education marketplace is not new. Many universities have achieved renown just from their reputation in computer systems. It is the contemplation of gaining competitive advantage in the higher education marketplace that is new. Higher education has traditionally been not a competition but a friendly cooperation within a collegial atmosphere. In this new inter-networked world, schools that strive for competitive advantage early will likely achieve dominance. To sustain competitive advantage will require extraordinary effort and a change in strategy. Information systems will need to become an integral part of the overall strategy. Continual information system upgrading and innovation will be the normal "campus" improvement and market research will become a

university department. Methods and ideas found to work in other industries would be analyzed and tested in the distance-learning marketplace.

To achieve competitive advantage, investment in “infostructure” is recommended. In a 1991 paper Eric Clemons offers seven lessons for consideration of investment in information technology. All lessons can be applied in some form and time, but lesson number seven is particularly instructive at this early stage: **Lesson Seven – Do Not Forget the Downside.**

Universities are moving onto the network with web sites, course support sites, service sites, and centers for research. The ‘downside’ is public discovery that the market does not perceive the school as competent or attractive. This is the “no news is good news” phenomenon. Once the decision to have a presence on the Internet is taken, the effort must be competitive or it will detract from the school’s image. Now, when the marketplace for distance learning is in its infancy, the university’s entry is crucial to the university’s strategic plan. Those universities that have experience with the use of information systems in education delivery, and have integrated that experience into the entire campus experience, will be in the best position to compete. Those that take a wait and see attitude, even a minimalist attitude, will not be able to catch the competition when asynchronous learning networks are the norm.

Student mobility in the network is not limited by geographic region or political boundaries. It is crucial that the faculty be aware that students will move to a mixture of distance learning and traditional classroom course offerings. This is the experience at NJIT and at schools with a high proportion of working students. Instructors who are able to integrate distance students with face-to-face students (on Asynchronous Learning Networks) will be competitive in this wider marketplace. If the faculty is competitive in this new marketplace the university will be sustained.

Clemons (1991) states that competitive advantage cannot be sustained on technological advantage alone. The resources necessary to fill content-rich distance learning courses are present in quantity only on traditional campuses. For-profit online schools, such as UNext, are buying content from traditional universities. Corporate takeover of teaching is unlikely given the cachet of name schools. Research universities are the ideal resource for content in distance learning; even for-profit schools recognize this resource. Students would prefer seasoned research professors as course moderators rather than talented adjunct instructors, because the value of the resultant degree is based upon the reputation of the faculty. Research by Hiltz (1997) has shown that students prefer online group discussions to traditional classes and that the mastery of the subject matter was equal to or

better than traditional classroom teaching. Competitive advantage is sustainable through the progressive use of innovative asynchronous learning networks coupled with renowned faculty.

Clemons (1991) further suggests that in the absence of sustaining competitive advantage, cooperative advantage is possible. This is the “if you can’t lick ’em, join ’em” alternative. Universities have a long history of joining forces with neighboring schools or supporting small feeder schools. By circling the wagons in this manner, students benefit from the resources of what would be a much larger institution and presumably retain the close contact with their chosen school. In a network, this size advantage is not perceptible to the student until campus services are needed such as library and support services. Universities are adept at offering cross-school registration and services such that the greater cooperative effort becomes a cooperative advantage unsustainable by isolated competitors. Asynchronous learning networks can merge the distance learning students and face-to-face students registered at each cooperating school.

Capital Investment

Capital investment in physical structures is lightly questioned as money well spent. Capitalizing training or general education of employees would be scrutinized carefully. The problem with employee training lies in the fear that the employee might walk to another place of employment. (Strassmann, 1998.) The investment by the firm in the employee makes him/her more valuable to the firm and thus more expensive. The firm hopes that offsetting increased productivity will more than compensate for the increased wage plus the training cost. The employee is now able to demand more wages by gaining more knowledge. The higher education institution that can convince the employee and company that asynchronous learning returns increased wages and productivity will be able to show that capitalizing education is valid.

Knowledge Investment

Companies and individuals are investing in knowledge acquisition at a furious pace and generally without explicit determination to do so. Strassman (1998) reports that one third to one half of time spent by employees on the job is in search of information unrelated to the delivery of goods and services. This overhead is 100% in the case of managerial employees indicating that the total knowledge investment in all employees is quite large.

In their book **The Network Nation**, Hiltz and Turoff predicted that computer communication would become a fundamental mechanism for individuals to form groups, work at home, form political and special interest groups, and provide new and unique types of services. This form

of knowledge investment has grown apace since the book was published and revised. Users of communication media discover that communication is the source of knowledge. Thus students will increasingly anticipate learning through communication within peer groups in collaboration rather than an individual construction of knowledge. (Hiltz and Benbunan-Fich, 1997) We have recently seen the rise of talk TV/radio shows as a way the public gains information about current issues. This expectation will be transferred to higher education. Students have the notion that the group can decide the truth, fix the facts, and determine appropriate course content. The computer communication media will be the student's choice of 'talk radio'. The university must provide the moderation to content and outcome through active involvement of faculty. An investment in knowledge of how to conduct mixed distance and face-to-face classes is critical.

Image Enhancement

Experimental results at NJIT found that students felt that distance learning enabled them to speed progress toward a degree with increased quality of the experience. Only 20% of the online students disagreed with that statement. (Hiltz, 1997) It is good to have satisfied customers. When the product delivery method contributes to a satisfied customer then the image of the school is enhanced. Alumni and current students are the natural source for building the image of the school. The competitive advantage of active students at a distance is apparent. The well-known schools have supporting alumni spread throughout the hometowns of prospective students and alumni actively recruit. Distance learning and collaborative learning experiences can bring students to the school when otherwise they would be lost to the competition. To quote one research professor: "It is up to faculty and to universities to put policies into place that will encourage what are seen as desirable impacts, and discourage the emergence of undesirable trends." (Hiltz, 1997)

The faculty provides an image that the student is hoping to acquire with the degree granted. Improving the effectiveness of the faculty through increased student contact, the school image is also enhanced by student association with renowned faculty. Faculty members are able to build a public image and discuss their work specialty. In turn the school is renowned by its faculty as media stars. The efficiency gains through the use of technology, hoped for by the administration, are really an increase in effectiveness. (Turoff, 1996)

Conclusion

It is possible that distance learning via network access is just one more technique to attract students. It is possible that the major competition for students will be

among traditional classroom-on-campus colleges. It is possible that universities can continue to prosper without offering asynchronous learning network courses. It is possible that the mission of public universities will be to provide ever-larger physical facilities. But none of these are probable. To continue to serve the public and to prosper, the innovative use of distance learning will be necessary to achieve competitive advantage.

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